IRIS 02: Integrated Robotic Intraocular Snake

- Vitreoretinal surgery is one of the most challenging microsurgery disciplines. A tendon-driven snake micro-manipulator can provide dexterous intraocular tool motion.
- **What Students Will Do:**
  - Finalize robot actuation unit
  - Integrate robot with Phantom Omni
  - Design control algorithm for IRIS
  - Conduct experiments

**Deliverables:**
- Interface the IRIS actuation unit with Phantom Omni
- Control algorithms
- Experimental results

**Size group:** 2

**Skills:**
- Required: Good analytical skills, Programming (Matlab, C/C++), CAD
- Desired: Control Theory, Electronics, Prototyping, Embedded Systems

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- Current status